

**HEADQUARTERS UNITED STATES AIR FORCE  
DEPUTY CHIEF OF STAFF FOR PERSONNEL  
DIRECTORATE OF LEARNING AND FORCE DEVELOPMENT**



**AIR FORCE  
STRATEGIC PLAN FOR  
ADVANCED DISTRIBUTED LEARNING**

**24 January 2003**



## TABLE OF CONTENTS

EXECUTIVE SUMMARY .....	1
1.0 INTRODUCTION .....	1
1.1 Purpose of the ADL Strategic Plan .....	1
1.2 ADL - Need and Context .....	1
2.0 U.S. AIR FORCE ADL VISION .....	4
3.0 ADL STRATEGIC GOALS .....	5
3.1 Sustain an ADL management structure that supports force development by enhancing the delivery of quality training, education and experience across the Total Force. 5	
3.2 Incorporate/build a business case for adequate funding and manpower to successfully develop, deploy and sustain an infrastructure to meet ADL mandates to support force development and enhance readiness and mission capabilities. ....	5
3.3 Employ standards and measurements for instructional design, infrastructure, tools, development, and processes to fully exploit distributed learning opportunities across the full spectrum of force development.....	6
3.4 Use an enterprise-wide, network-based infrastructure that provides learning on demand.....	6
4.0 ADL STRATEGIC ROAD MAP .....	6
4.1 Actions .....	6
4.2 Issues.....	8
5.0 CONCLUSION.....	8

## LIST OF FIGURES

Figure 1. ADL Strategic Goals .....	5
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## EXECUTIVE SUMMARY

At its core, the Air Force is a learning organization, dedicated to the lifelong pursuit of excellence. For over fifty years, the Air Force has effectively used a variety of instructional means to provide training and education opportunities to airmen all over the globe. Today, as the Air Force continues to transform its training and education environment in support of Force Development, Advanced Distributed Learning (ADL) is rapidly becoming a major instructional methodology for moving Air Force learning further into the future.

Developing airmen is a bedrock Air Force core competency and goes to the heart of combat capability. An aggressive change strategy is required to adjust skill content and capabilities of the force in a high-operations environment. ADL provides flexibility in the personnel force development system to make that adjustment by enabling delivery of the right training, education and experience to the right person at the right time. Only through agile system response to the environment, can we truly be a capability-based force.

Air Force training and education programs are designed to develop Total Force officers, enlisted and civilian personnel in the critical thinking skills and technical expertise demanded by today's military challenges. ADL enhances traditional course development by blending the latest and best information and technology available with legacy systems and methods. Resident program curricula can be enhanced by reusing products developed for ADL and utilizing technology insertion in training and education programs including Air Force directed training (skills training), supplemental training (ancillary training, MAJCOM, functional, etc.), voluntary education, and Professional Military Education (PME).

The Air Force has built a strong foundation for ADL; however, increasing service requirements drove a need to develop a more comprehensive plan to guide future distributed learning initiatives. The following ADL Strategic Plan provides the overarching framework for the Air Force to continue ADL development, deployment and sustainment. Executive Orders, Public Law, Department of Defense (DoD) guidance, and Air Force development initiatives mandate ADL as a training and education tool.

Headquarters Air Force, Directorate of Learning and Force Development (AF/DPL), chartered an integrated process team (IPT) to develop this ADL Vision and Strategic Plan to maximize the use and effectiveness of ADL. The strategic process involved two key phases. Phase 1 identified all ADL mandates and accomplished a strengths, weaknesses, opportunities, and threats (SWOT) analysis to determine the current state of ADL within the Air Force. Concurrently, a high-level needs assessment was completed to determine overall training and education requirements. Finally, private sector and the other service ADL best practices were examined. The outputs from these activities guided the ADL IPT members during the Phase 2 effort, an ADL workshop, to develop this ADL Vision and Strategic Plan. The AF ADL Vision Statement is:

**Leverage technology to provide the right training and education to the warfighter,  
anytime, anywhere**



The following strategic goals represent a strategy-to-task approach to guide and focus ADL development and implementation activities across the Total Force:

**Goal 1**—Sustain an ADL management structure that supports force development by enhancing the delivery of quality training, education and experience across the Total Force.

**Goal 2**—Incorporate/build a business case for adequate funding and manpower to successfully develop, deploy and sustain an infrastructure that meets ADL mandates to support force development while enhancing readiness and mission capabilities.

**Goal 3**—Employ standards and measurements for instructional design, infrastructure, tools, development, and processes to fully exploit distributed learning opportunities across the full spectrum.

**Goal 4**—Use an enterprise-wide network-based infrastructure that provides learning on demand.

The ADL Strategic Plan is a tool to link force development to the AF training and education arsenal by leveraging technology. The benefits of investing in this plan will be far reaching, as it will help realize the attainment of USAF's Force Development vision and DoD's broader transformation objectives. In today's world of swiftly flowing information and powerful technologies, every individual role in our Total Force carries greatly increased significance. Therefore, it is critical that every airman become operationally proficient as fast as possible. Implementing the initiatives outlined in this strategic plan will be instrumental in providing warfighters (officer, enlisted and civilian) with the right skill sets, at the right time, to shape events and rapidly respond to world-wide contingencies.

This plan must be supported, championed and fully implemented if the Air Force is to achieve its vision of an enhanced world-class training and education infrastructure to develop mission-ready, 21<sup>st</sup> century aerospace leaders and airmen to support Joint and Air Force requirements. This strategic plan establishes the Air Force's ADL vision, strategic goals, and major steps required to launch and subsequently implement ADL enterprise-wide. Without it, implementation is de-centralized without oversight, actions are disparate with a high probability of duplicated expenditures, and efficiencies and maximized benefits of a fully deployed strategic plan will be lost.



## 1.0 INTRODUCTION

### 1.1 Purpose of the ADL Strategic Plan

The inability to respond quickly and efficiently to rapid and unpredictable change creates vulnerabilities to new forms of asymmetric warfare that could put at risk the security of the nation, our national interests abroad, and U.S. armed forces. The diversity of missions and technological demands call for adaptability, innovation, precise judgment, forward thinking, and multicultural understanding. In direct response, the U.S. defense strategy has shifted from a “threat-based approach to a “capabilities-based approach that requires identifying capabilities that U.S. military forces will need to deter and defeat potential adversaries. It also demands a parallel shift in training and education that will provide exceptional speed and agility in preparing individuals and joint forces to respond decisively anywhere and anytime to any type of challenge.

Numerous mandates now require the Air Force to accelerate Air Force-wide employment of ADL to increase the efficiency and effectiveness of its training and education system so that it can respond quickly and adapt continuously to the changing strategic environment and potential challenges posed by changes in technology. Executive Orders 13111 and 13218 require all federal agencies to take full advantage of technological advances to educate and train the workforce, ensure that employees acquire the skills and learning needed to succeed in a changing workplace and to report on training technologies used. Department of Defense (DoD) Training Transformation, and DoD ADL Strategic and Implementations Plans, and AFI 36-2201, AF Training Program (Volumes 1-6) require the use of ADL to enhance on-the-job performance through the systematic application of learning technologies; and develop a common technical framework for the distributed learning environment. To meet the warfighter’s operational needs and to comply with DoD mandates to leverage ADL to the maximum extent possible, the Directorate of Learning and Force Development (AF/DPL) organized an ADL Integrated Process Team (IPT) to develop this strategic plan.

This ADL Strategic Plan provides a systemic framework and roadmap for developing, managing, resourcing, and implementing ADL. The ADL goals focus on the following areas:

- **Organizational Change**—Implementing an ADL management structure that ensures the delivery of quality training and education across the Total Force
- **Resourcing** —Building a business case to obtain funding and manpower to successfully develop, deploy and sustain ADL capabilities
- **Standards and Proficiency**—Providing standards, measurements and processes to fully exploit ADL for Air Force training and education transformation and force development
- **Technical Infrastructure**—Providing Air Force personnel with the right equipment and content

### 1.2 ADL - Need and Context

The Air Force has changed dramatically over the past decade. At the same time, the Air Force was downsizing because of the end of the Cold War, the operational tempo (OPTEMPO) of the Force reached levels not seen in decades. With the closure of many forward bases overseas, commitments in Southwest Asia and the Balkans meant that forces were frequently deployed



away from their home stations for extended periods. For those left at home station, this often meant increased work hours to provide “reach back” support to deployed forces and sustain their own home base missions. To overcome some of the negative effects of increased OPTEMPO on the workforce, the Air Force transitioned itself into the Expeditionary Air Force (EAF) model whereby 10 Aerospace Expeditionary Forces (AEFs) were established for steady-state, rotational operations or on-call at home station. This shift to the EAF construct added predictability and stability to service members’ lives. As the Air Force continues its EAF transformation, it follows that its education and training must also transition to a new construct that ensures our airmen receive continuous learning, whether they are in school, at home station, at home, en route to, or in the theater of operations.

Since its beginning, the Air Force has been committed to the highest standards of training and education for its members. The Air Force has one of the most effective training and education infrastructures anywhere in the world. This infrastructure provides training and education through a variety of means from classroom instruction to ADL. In fact, our highly trained people have been tested and proven our greatest resource in meeting our mission.

Complementary training, education and experiential programs, which span an individual’s entire career, enable the successful employment of aerospace power across the full spectrum of operations. In order for the Air Force to meet mission requirements of tomorrow, it must deliberately leverage technology to deliver instruction anytime, anywhere. Technology insertion and reuse of products developed for distributed learning can be used to enhance resident programs including Air Force directed training (skills training), supplemental training (ancillary training, MAJCOM, functional, etc.), voluntary education, and Professional Military Education (PME). Providing on-demand instruction is key to developing and maintaining the best Air Force in the world.

AF ADL is any method of training and education that takes place without requiring the physical presence of an instructor. It may occur anytime/anyplace, be formally structured, or take on the form of performance support depending upon the needs of the learner. AF ADL uses standards-based technology as well as legacy methods and media.

### ***Current Air Force ADL Administration***

In 1995, in response to the DoD mandate to leverage technology to provide quality training and education anytime, anywhere, the Air Force designated Air Education and Training Command (AETC) as the lead command for Air Force ADL. AETC supports the ADL strategic direction, as well as programming and budgeting for ADL development, implementation and sustainment of AF training programs.

The Air Force Institute for Advanced Distributed Learning (AFIADL) was established in February 2000. AFIADL develops, redesigns and delivers ADL courses and develops standards for ADL course development and redesign, hardware, software, and infrastructure. AFIADL’s on-line learning management system provides, as a minimum, student content and records management services. AFIADL also administers both the Extension Course Program (ECP) and the Air Technology Network (ATN), which provides learning through satellite technology.



### **Current Air Force ADL Initiatives**

There are nearly 2,600 distributed learning courses available to Air Force members through a variety of media; including paper-based, interactive television (ITV), computer based training (CBT), CD-ROM, and internet-based applications. The programs are developed and distributed by AETC organizations (2AF, AETC/DO, Air University, Air Force Institute of Technology), Air Force Materiel Command (AFMC), Air Combat Command (ACC), Air National Guard (ANG), Air Force Civil Engineering Support Agency (AFCESA), and Air Force Communications Agency (AFCA) with many of the courses being offered through a vendor service e-learning content provider. The courses cover a wide range of subjects that include basic computer usage, administration and management skills, professional military education (PME), ancillary training, and technical skill development and sustainment.

There are also several distributed learning projects currently underway. Examples include:

***Craftsman (7-level) Training*** - Redesign of courses; eight courses on-line or nearing completion.

***Continuing Education*** - Developing on-line courses and providing hosting and management solutions for SAF/FM, Air University (AU), Air Force Agency for Modeling and Simulation (AFAMS), and other AF customers.

***Electronic Testing*** - Collaboration between AFIADL and AFCESA to provide electronic testing for CDC end-of-course exams leading to eventual on-line implementation.

***Learning Management System (LMS) Pilot*** - Used to deploy 16 on-line courses, including AF craftsman (7-level) training courses, validate AF LMS requirements and test Sharable Content Object Reference Model (SCORM) implementation.

***Satellite Delivery of ADL content*** - Pilot testing of datacasting for high-speed ADL Web delivery is underway. This initiative will allow the rapid, mass distribution of course content to servers across the Air Force by avoiding existing Internet and NIPRNET bottlenecks.

The ADL Vision and Strategic Plan will ensure that these and future ADL efforts are requirements/capabilities-based, needs driven, and meet standards in an efficient and effective manner.





## 2.0 U.S. AIR FORCE ADL VISION

The Air Force ADL Vision is dynamic and warrior/learner centric to better enable training, education and experiential opportunities focused on joint operations, interoperability and integration. The term “joint” is used in the broader context of: DoD (joint forces, defense agencies and defense organizations) and its civilian counterparts (multinational, interagency and intergovernmental). This vision is a key step in transforming the current Air Force training and education environment to align with the DoD Training Transformation Vision and is both realistic and achievable. It fully compliments recognized training and education doctrine and policies, while influencing training and education investment and development decisions. The ADL Vision will guide future actions and provide the foundation/criteria to answer the question: “Does this action being considered support the Air Force Vision?” The AF ADL Vision Statement is:

### **Leverage technology to provide the right training and education to the warfighter; anytime, anywhere**

**Leverage technology:** Applying the right technology is essential in enhancing and meeting each learning objective. Smart use of technology will enable the Air Force to reduce the time for the warfighter to become operationally and professionally proficient—from basic skills to upgrade and ancillary training, and from professional military education to voluntary education.

ADL is an alternative approach, another method of instruction, using both legacy methods and the most recent and promising instructional techniques and technology. It fully compliments recognized training and education doctrine and policies while applying the right technology to the learning objective for both resident and distributed learning. Technology provides flexibility in when, where and how training is accessed and supports a change in skill content of the force when operations demand a rapid shift to certain occupations.

**Warfighter:** The term warfighter includes the individual member (officer, enlisted and civilian) and commanders, as well as a descriptive term for the collective forces. The warfighter is the driving force behind this strategic plan – the warfighter makes ADL relevant. Training and education are the lifeblood that sustains the Total Force and makes it the best in the world. “Total Force” describes all the members of the Air Force community—officers, enlisted, civilians, and contractors across the Active Duty, Guard and Reserve Forces—who must receive the right level and focus of training, education and experience to ensure that they can accomplish their missions and keep the U.S. Air Force the best in the world.

Airmen consistently cite training and education as reasons for enlistment and re-enlistment. Increasing their opportunity to achieve personal education and vocational goals will enhance both retention and readiness. Availability of latest technology also serves as a recruitment tool to attract techno-oriented individuals to join our highly technical force.

**Anytime, anywhere:** Rather than structuring their work around available training and education classes, members of the Total Force will be able to receive training and take courses anywhere in the world, on deployment, at their home station, and at a time when they or their work center chooses.





### 3.0 ADL STRATEGIC GOALS

The four goals in **Figure 1** guide and focus ADL development and implementation activities for the Total Force. The ADL Strategic Plan is a living document. As goals are achieved, they will be updated or closed. Goals, initiatives and strategies will be added to the ADL Strategic Plan as necessary. This plan will be reviewed periodically.

**Figure 1. ADL Strategic Goals**

Goal #	Goal Statement
1	Sustain an ADL management structure that supports force development by enhancing the delivery of quality training, education and experience across the Total Force.
2	Incorporate/build a business case for adequate funding and manpower to successfully develop, deploy and sustain an infrastructure that meets ADL mandates to support force development while enhancing readiness and mission capabilities.
3	Employ standards and measurements for instructional design, infrastructure, tools, development, and processes to fully exploit distributed learning opportunities across the full spectrum.
4	Use an enterprise-wide network-based infrastructure that provides learning on demand.

#### 3.1 Sustain an ADL management structure that supports force development by enhancing the delivery of quality training, education and experience across the Total Force.

Strong, high-level support from senior leaders is essential if warfighters are to benefit from the full potential of ADL. Air Force guidance on Force Development and DoD Training Transformation highlights the potential of ADL and require full integration into the implementation and sustainment of new and evolving constructs, concepts and initiatives.

AF leadership has directed a family of Force Development execution plans to create a single developmental continuum of activities that, although separate and distinct, are fully integrated endeavors working in concert with one another. ADL is a key enabler in that developmental continuum. Senior leaders will assure an enterprise-wide approach and provide effective and efficient management of ADL development and implementation by directing the use of ADL in each execution plan. This includes articulating and resourcing ADL requirements.

#### 3.2 Incorporate/build a business case for adequate funding and manpower to successfully develop, deploy and sustain an infrastructure that meets ADL mandates to support force development while enhancing readiness and mission capabilities.

Force Development relies on the right training and education delivered at the right place, at the right time, to the right person. Funding in the near and long term will be vitally important to the success of this ADL mandate. Start-up costs stemming from the procurement of computer equipment, software and telecommunications and development of a knowledge network, common standards, repositories, electronic performance support and learning management systems—all essential to the well functioning of ADL—may present funding challenges in the near term.



In some cases, where readiness is of higher priority, ADL may be more costly than traditional training in terms of resources. However, when the tools, supporting structure, and manpower are established, the long-term resource benefits of ADL will be realized. In the long term, maintenance of technology, replacing outmoded systems, new or renovated facilities, and updating course content will continue to be priorities.

### **3.3 Employ standards and measurements for instructional design, infrastructure, tools, development, and processes to fully exploit distributed learning opportunities across the full spectrum.**

The Air Force operates on knowledge accumulated over 50 years of quality service. Harnessing that knowledge and growing future insights will be one of the key tasks of the ADL initiative. Making sure that tomorrow's trainers are proficient in ADL instructional methods, that developers are familiar with new systems, and that there are clear standards and administrative procedures for courseware and content design will largely determine the shape of the Air Force for many years to come. Learning Management Systems will need to be deployed to provide quick access to information and keep records of learner participation and performance. Additionally, the Air Force will monitor government and private sector ADL best practices for enhancing the professional development of the training and education community as well as remaining current on technological advancements.

### **3.4 Use an enterprise-wide, network-based infrastructure that provides learning on demand.**

Providing Air Force personnel with the right equipment and content to meet their duty responsibilities will have a positive impact on future EAF missions. The ADL supporting infrastructure must be robust and scalable in order to satisfy increasing learner demand and to adapt to the pace of technological change. Standards need to be drafted and implemented in a uniform manner. Development of an ADL portal off of the Air Force Portal must occur to provide Air Force personnel one definitive place to go for their training and education needs. Partnerships must also be established between the units and the communications community at large.

## **4.0 ADL STRATEGIC ROAD MAP**

This ADL Strategic Plan sets the direction and pace for the enterprise-wide organizational, cultural, and technological changes that will occur during ADL implementation. The major initiatives associated with the Strategic Goals have been organized as actions to be defined in greater detail in the AF ADL Implementation Plan; providing a systematic framework and roadmap for developing, managing, resourcing, and implementing ADL. The AF ADL Implementation Plan will: establish direction, guidance and priorities; identify roles and responsibilities; and outline timelines for enterprise-wide ADL implementation. The tasks identified in the AF ADL Implementation plan will specifically address the Strategic goals, and incorporate and build upon required actions listed below.

### **4.1 Actions**

#### **4.1.1 Sustain an ADL management structure that supports force development by enhancing the delivery of quality training, education and experience across the Total Force.**

4.1.1.1 Develop a top-down ADL management structure that clearly articulates and delineates roles and responsibilities, writes/sets ADL policies and standards, and obtains resources to enforce them.



4.1.1.2. Establish procedures to ensure consideration of ADL in all strategy and doctrine development, maximizing the benefits of leveraged technology.

4.1.1.3 Reengineer ADL business practices to achieve a more efficient, effective and agile management structure.

4.1.1.4 Implement an effective marketing strategy to demonstrate the benefits of ADL to the warfighter, foster use and gain support.

**4.1.2 Incorporate/build a business case for adequate funding and manpower to successfully develop, deploy and sustain an infrastructure that meets ADL mandates to support force development while enhancing readiness and mission capabilities.**

4.1.2.1 Develop a business plan that describes the benefits (tangible and intangible) and costs associated with ADL development and implementation.

4.1.2.2 Define and develop policy and guidance rules of engagement for ADL Program Element Code (PEC).

4.1.2.3 Identify ADL funding processes across the Air Force.

4.1.2.4 Provide guidance to ensure MAJCOMs can properly POM for ADL-related requirements by the end of FY03.

4.1.2.5 Provide guidance to prioritize ADL initiatives and defend ADL requirements through the Air Force corporate process.

**4.1.3 Employ standards and measurements for instructional design, infrastructure, tools development, and processes to fully exploit distributed learning opportunities across the full spectrum.**

4.1.3.1 Institute training plans to develop instructional staff and overall personnel proficiency in applying distributed learning technologies to fully exploit ADL opportunities.

4.1.3.2 Develop quantitative methods to measure the impact of distributed learning on the force and validate the effectiveness of ADL upon Air Force operational readiness; then use these methods to perform a complete data analysis.

4.1.3.3 Publish policy and guidance on integration of technology insertion and ADL in Air Force Instructional Systems Development (ISD) processes.

4.1.3.4 Develop a process to identify, evaluate and implement new learning methodologies and instructional technologies for Air Force ADL organizations.

4.1.3.5 Establish processes and services that encourage career-long training and education in a distributed environment.

4.1.3.6 Establish a clearinghouse of information on ADL programs and courses and a system of repositories.



#### 4.1.4 Use an enterprise-wide, network-based infrastructure that provides learning on demand:

- 4.1.4.1 Form a partnership with the communications community and develop policies and procedures for systems support of ADL content development, storage, retrieval, and delivery of all types of learning media.
- 4.1.4.2 Evaluate and implement standards consistent with EAF operational environment and define system requirements.
- 4.1.4.3 Design basic architecture, required components and interfaces.

## 4.2 Issues

Strategic planning for ADL implementation requires leadership support, buy-in, resources, and constant communications. Ultimately, these considerations will translate into significant changes to existing business practices and shifts in organizational paradigms that must be resolved in order to realize the potential benefits of the goals contained in this document. As with any enterprise-wide technological implementation, issues affecting: *organization* - effects of change; *resources* - budget strategy, funding and manpower; and *application* - technological/communications considerations - exist. These issues were carefully considered during the development of the goals and initiatives for this strategic plan and will be specifically detailed in the ADL Implementation Plan.

## 5.0 CONCLUSION

The ADL Strategic Plan is a strategy to link ADL to the AF training and education arsenal. This plan provides top-down direction and organizes and focuses total force resources, initiatives and priorities. The benefits of investing in this plan will be far reaching, as it provides the foundation for ADL statutory compliance, DoD transformation and deliberate force development.

The ADL Strategic Plan must be supported, championed and fully implemented if the Air Force is to support combatant commander requirements and achieve its vision to make a world-class training and education infrastructure even better. Without this plan, implementation is decentralized without oversight, actions are disparate with a high probability of duplicated expenditures, and efficiencies and maximized benefits of a fully deployed strategic plan will be lost. The AF will also fail to fulfill ADL statutory and DoD Training Transformation mandates.

The AF must respond with efficient and effective training, education and experience to provide combatant commanders mission-ready airmen with the right skills at the right time. By providing anytime, anywhere access to learning, the Air Force will be able to reduce the time required to reach proficiency and produce skill mix adjustments demanded in rapidly changing operational environments. This capability, called Agile Combat Learning, is key to developing a force where success is measured not by who has the biggest machine, but when the right information is delivered at the right time to make the right decision.